

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A method, comprising:

determining parameters of a ball grid array (BGA) package having an array of

solder balls; and

applying a bonder to the parameters of the BGA package, wherein the bonder is

applied independently of the array of solder balls, and the bonder is

applied surrounding the array of solder balls.
2. (Original) The method of claim 1, wherein the BGA package comprises:

an integrated circuit (IC) device;

a first surface coupled with the IC device;

a printed circuit board (PCB) having a second surface, the second surface aligned

with the first surface using the array of solder balls, wherein the array of

solder balls placed in between the first surface and the second surface; and

solder joints to attach the array of solder balls with the first surface and the second

surface.
3. (Original) The method of claim 1, wherein the applying of the bonder comprises

applying the bonder between the first surface and the second surface to provide

resistance to the BGA package against warpage.
4. (Currently Amended) The method of claim 3, wherein the warpage comprises at

least one of ~~the following~~: opening, cracking, curving, bending, and breaking of

the second surface.
5. (Currently Amended) The method of claim 1, wherein the bonder is further

applied to one or more of ~~the following~~: edges and corners.

6. (Original) The method of claim 1, wherein the applying of the bonder comprises applying the bonder using a bonder dispenser.
7. (Currently Amended) The method of claim 1, wherein the bonder comprises at least one of ~~the following~~: a thermoplastic bonder and a silicon bonder.
8. (Currently Amended) The method of claim 1, wherein the applying of the bonder comprises applying the thermoplastic bonder using a hot melting jig or a dispenser, the hot melting jig and the dispenser comprise at least one of ~~the following~~: a hot melt hand applicator and an adhesive unit.
9. (Original) The method of claim 1, wherein the applying of the bonder comprises applying the silicon bonder using an epoxy dispenser machine.
10. (Original) The method of claim 1, wherein the independent application of the bonder is performed using software to control placement distance of the bonder with respect to the array of solder balls.
11. (Previously Presented) A method, comprising:

determining parameters of a ball grid array (BGA) package having an array of solder balls; and

applying bonder balls to the parameters between a first surface and a second surface in the BGA package, wherein the bonder balls are applied independently of the array of solder balls, and the bonder balls are applied surrounding the array of solder balls.
12. (Canceled).
13. (Previously Presented) The method of claim 11, wherein the bonder balls comprise thermoplastic bonder balls, the thermoplastic bonder balls are applied after solder waving.

14. (Currently Amended) The method of claim 13, wherein the thermoplastic bonder balls are applied using a hot melting jig or a dispenser, the hot melting jig and the dispenser comprise at least one of ~~the following~~: a hot melt hand applicator and an adhesive unit.
15. (Currently Amended) A method, comprising:
determining ~~an area of weakness in~~ parameters of a ball grid array (BGA)
package having an array of solid balls; and
applying a silicon bonder to the parameters of the BGA package, wherein the
silicon bonder is applied ~~area of weakness~~ between a first surface and a
second surface in the BGA package, and the silicon bonder is applied
surrounding the array of solid balls.
16. (Cancelled)
17. (Previously Presented) The method of claim 11, wherein bonder balls comprise silicon bonder balls, the silicon bonder balls are applied prior to solder reflowing.
18. (Previously Presented) The method of claim 17, wherein the silicon bonder balls are applied using an epoxy dispenser machine with silicon volume.

Claims 19-29 (Canceled)

30. (New) The method of claim 15, wherein the silicon bonder is further applied to one or more of edges and corners.
31. (New) The method of claim 15, wherein the applying of the silicon bonder comprises applying the silicon bonder using a bonder dispenser.